ABSTRACT OF THE DISCLOSURE

An encapsulation device having an expandable, porous body with a cavity, the body having a sealed end and a sealable end, where the body is configured to receive one or more fluids through a port in the sealable end, the body is configured to expand to conform to a shape of a target, and where the sealable end may be sealed to prevent leakage into the body, and a method if using the encapsulation device, is disclosed. The body may comprise porous membrane including expanded Polytetrafluoroethylene (ePTFE), polyester fiberfill, metal/polymer mesh, and perforated or porous polymer/metal. The target may include a location within the human body. The port in the sealable end is configured to receive a first fluid into the cavity to expand the body to conform to the shape of the target, and the port is further configured to receive a second fluid into the cavity which displaces the first fluid by diffusing the first fluid through the pores in the body and which cures (such as, by an ultraviolet light source) to secure the body to the target. Optionally, the introduction of the second fluid may be unnecessary when the first fluid includes the desired filler material for the encapsulation device.